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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,663	10/02/2003	Thomas J. Pinnavaia	MSU 4.1-664	9971

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EXAMINER	
BROWN, JENNINE M	

ART UNIT	PAPER NUMBER
1755	

DATE MAILED: 01/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)	
	10/677,663	PINNAVAIA ET AL.	
	Examin r	Art Unit	
	Jennine M. Brown	1755	

-- The MAILING DATE of this communication appears on the cov r sh et with the correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-19 and 30-35* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *13-19, 30-35* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *10/2/2003*.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16-17, 19 and 30-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 16 recites the limitation "co-surfactant" in line 2 but lacks antecedent basis in claims 13-15. Claim 13 states "an organic surfactant" which implies that one surfactant is present. There is insufficient antecedent basis for the co-surfactant limitation in the claim.

Claim 17 recites the limitation "in addition the composition is calcined" and claim 18 recites the limitation "in addition the composition is calcined at above about 400 °C. Both claims are dependent upon claim 13, which does not recite this limitation. "Further comprising" is used to add a new limitation not in the primary claim.

The term "at above about" in claim 19 is a relative term which renders the claim indefinite. The term "at above about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. Does the applicant wish the temperature to be "at" or "above" or "about"? The first designation "at" would suggest a definite number and the second designation "above" would exclude the number designated and anything below that and the term "about" is indefinite. Applicant should amend the claim commensurate with the disclosure of the specification and use a designation which is clear as to the meaning.

The term "about" in claim 30 is a relative term which renders the claim indefinite. The term "about" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The ratio of aluminum to silicon is unclear as to whether one would mean 1999:1 or 1001:1 or 1000.5:1 when using the term "about".

Claims 30-35 are indefinite because the claims are drawn to a mixture with an OH-/(Si + Al) ratio in the range of 0.10 to 10 but fail to disclose if this ratio is a w/w ratio, w/v ratio, v/v ratio or molar ratio.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-15, 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lujano, et al. (US 5849258).

See entire document. Lujano, et al. disclose a process for forming porous aluminosilicate composition (composition consists of aqueous solutions) comprising providing aluminosilicate seeds (referred to as "nuclei") reacted in an aqueous medium (water) with an organic onium ion surfactant (CTAB), aging 24 hours at a temperature of 80 °C to obtain a precipitate (referred to as "solid") which was washed and dried (implied separation such as filtration) and further calcination at 500 °C (col. 8, l. 40-65).

Claims 30 and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Benazzi, et al. (US 5695735 A).

See entire document. Benazzi, et al. disclose a process for forming porous aluminosilicate composition (composition consists of basic aqueous and alcoholic solutions of silica and alumina) which provide aluminosilicate seeds which are reacted in an aqueous medium with an organic surfactant (tetrapropylammonium bromide), aging 6 hours at a temperature of 170 °C and 9 mL acetic acid (acidification with protonic acid) to obtain a precipitate which was filtered having an Si/Al molar ratio of 25. (col. 5, l. 50-col. 6, l. 7). It is the examiner's position that the ratio of the protonic acid to silica alumina mixture would inherently be present in the claimed range since the range is not defined and the aluminum to silica ratio is within applicant's claimed range.

Statutory Double Patenting

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope.

The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claims 13-19 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 13-19 of copending Application No. US 2004/0067842 A1. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Non-Statutory Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 13-19 and 30-35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 13-19, 30-35, 53-55, 65-72, 77-78, 81 of copending Application No. 2002/0131930 A1.

a. Claims 13-19 of the instant application correspond to claims 13-19 and 53-55, 77-78 and 81 of the copending application. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a process for forming a porous aluminosilicate comprising zeolite seeds selected from aqueous solution, gel, suspension wetted powder and mixtures thereof, reacting in an aqueous medium with a surfactant based organic porogen and aging between 25 and 200 °C and then separating the composition from the aged mixture. The surfactants claimed in both processes are selected from the group of onium ion surfactants and non-ionic surfactants. The processes both further incorporates a co-surfactant selected from alkyl alcohol, alkylamine, aromatic hydrocarbon and mixtures thereof containing 3-36 carbon atoms in the aromatic hydrocarbon. The processes both further incorporates calcining the separated composition at above 400 °C. Although the copending process is not identical to the instant claims because the porogen in the copending application can be either a surfactant or triethanolamine, and that of the instant claims is limited to a surfactant, the order of introduction of ingredients and composition produced should be the same or an obvious variant of the product produced from the instant claims.

b. Claims 30-35 of the instant application correspond to claims 30-35 of the copending application.

Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a process for forming porous aluminosilicate comprising reacting sodium silicate at basic pH with sodium aluminate having an aluminum to silicon ration between about 1000:1 and 1:1, aging the mixture at 20-200 °C for periods up to 48 hours to form zeolite seeds, reacting the resultant mixture with a surfactant organic porogen, then acidifying with a protonic acid having an OH-/(Si + Al) ratio in the range of 0.10 to 10, aging between 20-200 °C then separating the precipitate. Although the copending process is not identical to the instant claims because the porogen in the copending application can be a specific ionic or non ionic surfactant or non surfactant, and that of the instant claims is only limited to a surfactant with an optional co-surfactant, the order of introduction of ingredients and composition produced should be the same or an obvious variant of the product produced from the instant claims.

According to the MPEP, when the reference teaches a product that appears to be the same as, or an obvious variant of the product set forth in a product-by-process claim although produced by a different process, the claims are limited by and defined by the product itself and not on the process of production. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113.

The burden now shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983) (The claims were directed to a zeolite manufactured by mixing together various inorganic materials in solution and heating the resultant gel to form a crystalline metal silicate essentially free of alkali metal. The prior art described a process of making a zeolite which, after ion exchange to remove alkali metal, appeared to be "essentially free of alkali metal." The court upheld the rejection because the applicant had not come forward with any evidence that the prior art was not "essentially free of alkali metal" and therefore a different and unobvious product.).

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 30-35 rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-6 of US 6770258 B2. Although the conflicting claims are not identical, they are not patentably distinct from each other because both claim a process for forming mesoporous aluminosilicate comprising reacting sodium silicate at basic pH with sodium aluminate where the Si/Al ratio is between about 1000:1 to 1:1, aging the mixture at 25-200 °C for up to 48 hours to produce zeolite seeds, reacting with a surfactant, acidifying the mixture with a protonic acid to obtain a mixture with an OH-/(Si + Al) ratio in the range of 0.10 to 10, aging the mixture at a temperature from 20-200 °C and separating the precipitated product.

The patented claims are drawn to a process which differs in step (b) of claim 30 because the solution is diluted before reacting with an onium ion surfactant and the aged mixture in step (d) is aged at a temperature from 80-200 °C. The instant claim 30 is drawn to a surfactant and optional co-surfactant and in step (d) an aging temperature between 20 and 200 °C. The patented claims having an onium ion surfactant would be a species of the claimed genus surfactant and the patented claims having a temperature range from 80-200 °C is within the range claimed in the instant application.

The patented claim 6 is drawn to a process for forming mesoporous aluminosilicate comprising providing zeolite seeds as an aqueous solution, gel, suspension, wet powder, or combination thereof, reacting said zeolite seeds with a surfactant wherein the medium has an OH-/(Si + Al) range of 0.10 to 10, aging at a temperature from 20-200 °C and separating the precipitate formed. The patented claims are drawn to a process which differs in step (b) of claim 35 because the solution is reacted with an onium ion surfactant and the aged mixture in step (d) is aged at a temperature from 80-200 °C. The instant claim 35 is drawn to a surfactant and in step (d) an aging temperature between 20 and 200 °C. The patented claims having an onium ion surfactant would be a species of the claimed genus surfactant and the patented claims having a temperature range from 80-200 °C is within the range claimed in the instant application.

According to the MPEP, when the reference teaches a product that appears to be the same as, or an obvious variant of the product set forth in a product-by-process claim although produced by a different process, the claims are limited by and defined by the product itself and not on the process of production. See In re Marosi, 710 F.2d 799, 218 USPQ 289 (Fed. Cir. 1983) and In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). See also MPEP § 2113.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennine M. Brown whose telephone number is (571) 272-1364. The examiner can normally be reached on M-R 9:30 AM - 7:30 PM; Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Sample can be reached on (571) 272-1376. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jmb

PAUL MARCANTONI
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